

FIG. 1
Prior Art

FIG. 2

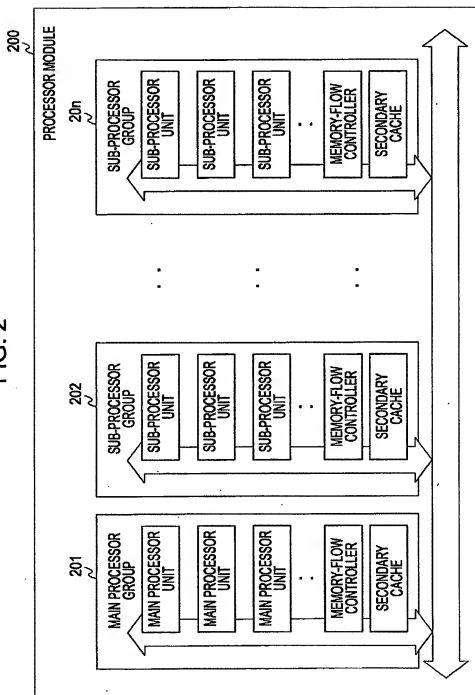


FIG. 3

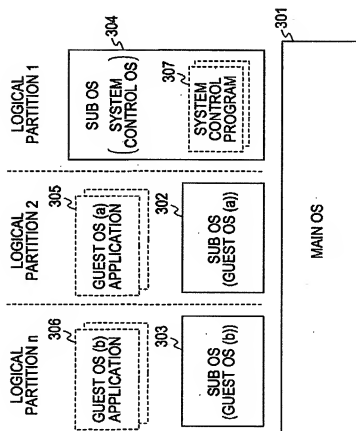


FIG. 4

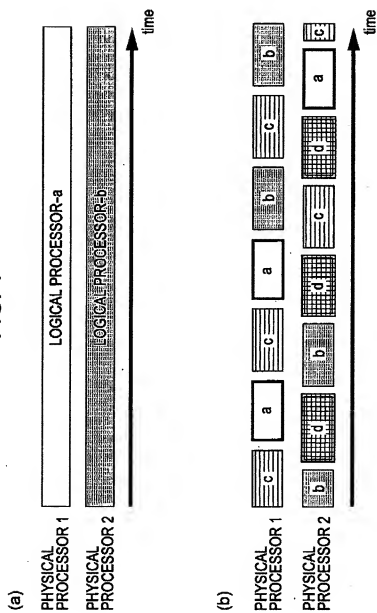


FIG. 5

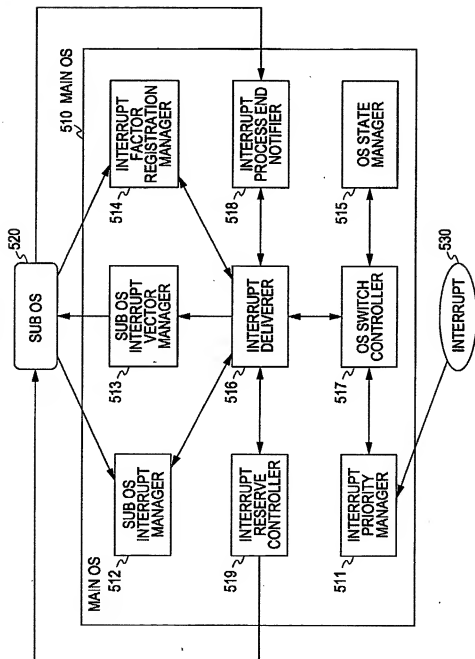


FIG. 6

| OS TYPE | INTERRUPT ENABLED STATE OR INTERRUPT DISABLED STATE | RESERVE INTERRUPT | PROCESS INTERRUPT |
|----------|--|----------------------------|-------------------|
| MAIN OS | DISABLED | — | — |
| SUB OS-1 | ENABLED | — | INTERRUPT e |
| SUB OS-2 | DISABLED | INTERRUPT a INTERRUPT b | — |
| ⋮ ⋮ | ⋮ ⋮ | ⋮ ⋮ | ⋮ ⋮ |
| SUB OS-n | DISABLED | INTERRUPT c INTERRUPT d | — |

FIG. 7

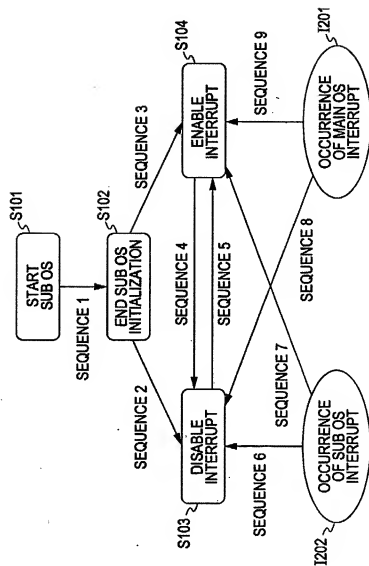


FIG. 8

| SCENARIO | OS IN OPERATION | INTERRUPT PRIORITY | INTERRUPT DESTINATION OS | INTERRUPT ENABLED/DISABLED STATE OF INTERRUPT DESTINATION OS |
|-------------|-----------------|--------------------|--------------------------|--|
| SCENARIO 01 | SUB OS | LOW | MAIN OS | INTERRUPT ENABLED |
| SCENARIO 02 | SUB OS | LOW | MAIN OS | INTERRUPT DISABLED |
| SCENARIO 03 | SUB OS | LOW | SUB OS | INTERRUPT ENABLED |
| SCENARIO 04 | SUB OS | LOW | SUB OS | INTERRUPT DISABLED |
| SCENARIO 05 | SUB OS | HIGH | MAIN OS | INTERRUPT ENABLED |
| SCENARIO 06 | SUB OS | HIGH | MAIN OS | INTERRUPT DISABLED |
| SCENARIO 07 | SUB OS | HIGH | SUB OS | INTERRUPT ENABLED |
| SCENARIO 08 | SUB OS | HIGH | SUB OS | INTERRUPT DISABLED |
| SCENARIO 09 | MAIN OS | LOW | MAIN OS | INTERRUPT ENABLED |
| SCENARIO 10 | MAIN OS | LOW | MAIN OS | INTERRUPT DISABLED |
| SCENARIO 11 | MAIN OS | LOW | SUB OS | INTERRUPT ENABLED |
| SCENARIO 12 | MAIN OS | LOW | SUB OS | INTERRUPT DISABLED |
| SCENARIO 13 | MAIN OS | HIGH | MAIN OS | INTERRUPT ENABLED |
| SCENARIO 14 | MAIN OS | HIGH | MAIN OS | INTERRUPT DISABLED |
| SCENARIO 15 | MAIN OS | HIGH | SUB OS | INTERRUPT ENABLED |
| SCENARIO 16 | MAIN OS | HIGH | SUB OS | INTERRUPT DISABLED |

FIG. 9

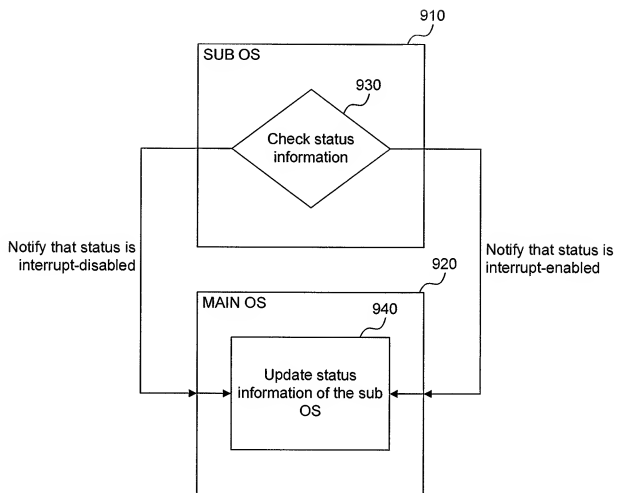


FIG. 10

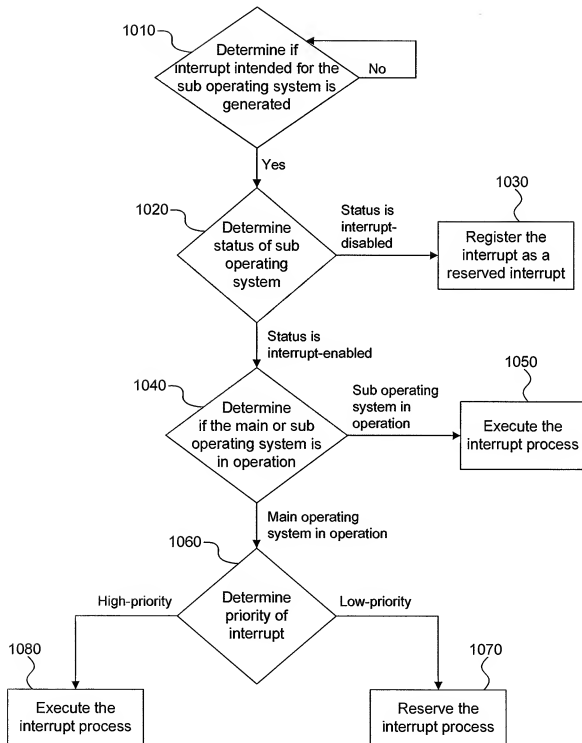


FIG. 11

